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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/761,330	01/22/2004	Tsuyoshi Nakamura	Q79512	2694
23373	7590	02/24/2005	EXAMINER	
SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			GUADALUPE, YARITZA	
			ART UNIT	PAPER NUMBER
			2859	

DATE MAILED: 02/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/761,330

Applicant(s)

NAKAMURA ET AL.

Examiner

Yaritza Guadalupe McCall

Art Unit

2859

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |  |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>1/22/2004</u> . | 6) <input type="checkbox"/> Other: ____  |

## **DETAILED ACTION**

### ***Claim Objections***

1. Claim 1 is objected to because of the following informalities:
  - a. Claim 1 recites the limitation “a stage” and “guide elements provided on both ends” which renders the claim language as indefinite. Upon review of the drawings, there is a plurality of stages shown in the drawings, such as the base ( 11 ) which is provided with guide elements ( 60A, 61A, 61B, 62A, 63A, 63 ) along the four sides of the base; the X-axis stage ( 13 ) which has guide elements ( 25C, 25D ) on opposite sides of the stage; and the Y-axis stage ( 12 ) also showing guide elements ( 25A, 25B ) on opposite sides of the stage. It is not clear what its being claimed by the applicant since the metes and bounds of the claimed language are not clear. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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3. Claims 1 – 6 are rejected under 35 U.S.C. 102 ( b ) as being anticipated by Yanagisawa (US 6,327,929 ).

With respect to claim 1, Yanagisawa discloses a two dimensional drive system and apparatus comprising a stage ( support stage 42, X-axis stage 16, Y-axis stage 18, and base stage 10 ); guide elements ( 12, 14, 17, 19 ) provided on opposite ends of each stage; drive elements (22, 24) which are provided on the X and Y axes stages ( 16, 18 ) so as to move each stage along the guide elements in an X – axis and a Y-axis. Yanagisawa discloses an apparatus having drive elements ( 22, 24 ) provided with a support structure where a set of two guide elements (17, 19) are disposed on opposite sides of each drive element ( See Figure 1 ).

In regards to the stiffness limitation in claim 1, Yanagisawa discloses an apparatus wherein the X-axis stage ( 16 ) could be positioned at one end of the base stage ( 42 ) and wherein the Y-axis stage ( 18 ) could also be positioned at one end of the base stage ( 42 ) by actuation of motors ( 26, 28 ), therefore, the stiffness of the guide elements ( 17, 19 ), in a yawing direction of the stage, provided in the area where the drive elements ( 22, 24 ) are provided, is made higher than that of the guide elements ( 12, 14 ) provided in an area opposite the area where the drive elements ( 22, 24 ) are provided.

In regards to claim 2, Yanagisawa also discloses a guide element ( 12, 14, 30, 31 ) additionally provided in the area of the stage where the drive element is provided.

Regarding claim 3, Yanagisawa teaches a plurality of guide elements ( 12, 14, 30, 31 ) provided in the area of the stage where the drive element ( 22, 24 ) is provided arranged substantially symmetrically with respect to the drive elements and mutually proximate to each other.

With regards to claim 4, Yanagisawa further discloses an apparatus wherein the drive elements ( 22, 24 ) are formed from a ball screw ( See Column 7, lines 16 – 23 ), and the guide elements are formed from a linear guide ( See Figure 1 and column 6, line 42 ).

In regards to claim 5, Yanagisawa teaches the stage having an opening section ( 11 ).

Regarding claim 6, Yanagisawa discloses an X - Y axis stage system comprising a stage (42); guide elements ( 12, 14 ) provided on both ends of the stage; drive elements ( 22, 24 ) which are provided at one of both ends of the stage and move the stage along the guide elements in an X – axis and a Y-axis, and wherein stiffness, in a yawing direction of the stage, of the guide elements ( 12, 14 ) provided in the area where the drive elements ( 22, 24 ) are provided is made higher than that of the guide elements provided in an area opposite the area where the drive element is provided.

***Conclusion***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following references are considered of relevance to the present application :

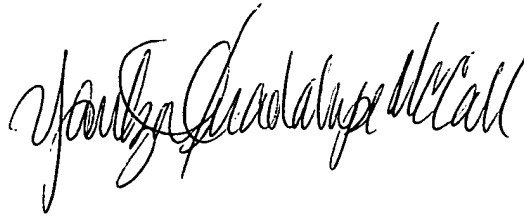
- a. Kaneko et al. ( US 6,817,104 )
- b. Tominaga et al. ( US 6,647,632 )
- c. Montesanti et al. ( US 6,839,970 )
- d. Jourtchenko et al. ( US 6,434,840 )
- e. Trumper et al. ( US 5,699,621 )
- f. Mishler ( US 6,609,304 )
- g. Gerber ( US 3,918,167 )
- h. Kaczynski ( US 6,347,458 )
- i. Ebihara ( US 5,806,193 )
- j. Prentice et al. ( US 6,157,157 )

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yaritza Guadalupe McCall whose telephone number is (571)272-2244. The examiner can normally be reached on 8:00 AM - 5:30 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego F.F. Gutierrez can be reached on (571) 272-2245. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, reading "Yaritza Guadalupe-McCall". The signature is fluid and cursive, with the first name "Yaritza" being more prominent.

YGM  
February 18, 2005

Yaritza Guadalupe-McCall  
Patent Examiner  
Art Unit 2859